

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows:

Replace the paragraph on page 13, lines 1-20 with the following amended paragraph.

~~General~~General Ex Vivo Embodiment (FIGS. 2A, 2B and 2C)

In the ~~ex vivo~~ex vivo embodiment biosensor 22 is positioned on body 24 of device 20, and does not to pass into the subject during penetration. Alternatively, the biosensor may be positioned on the microprobe sufficiently close to the body end so as not to penetrate. The analyte fluid may be guided along microprobe 26 to biosensor 22 through a suitable conduit such as open fluid channel or groove 26G formed along the probe. The channel extends between the penetration end of the probe and the biosensor, and conveys the fluid by capillary action. The absence of a prior art type internal bore along the length of the probe reduces the probe diameter and simplifies probe fabrication. The open fluid channel may be a V-groove etched in the silicon of microprobe 26. The minute dimensions along apex 26A of triangular groove 26G (shown in FIG. 2C cross-section view) produce strong capillary forces that are more reliable than fluid seepage. The width and depth of V-grooves may be precisely controlled by V-groove etching IC technology. However other channel cross-sections may be produced by other techniques such as plasma etching.

Replace the paragraph on page 19, lines 3-12 with the following amended paragraph.

FIG. 6 shows the averaged response from 62 patients in a clinical trial to determine the relative pain perceived from punctures with a ~~silicone~~silicon microprobe in the arm compared with punctures in the arm and finger with conventional metal lancets. As can be seen from the FIG. 6, the punctures from the silicon microprobe were found to be noticeably less painful than those from the lancet, with the more painful of the two lancet tests being the finger stick, as expected. The test subjects repeatedly commented that the microprobe puncture was virtually painless and far more comfortable than the finger stick with the lancet.

2 of 17